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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,664

01/06/2006

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10191/4091

2943

26646 7590 01/31/2008

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EXAMINER

MORTELL, JOHN F

ART UNIT

PAPER NUMBER

4154

MAIL DATE

DELIVERY MODE

01/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,664	Applicant(s) LEE ET AL.	
	Examiner JOHN F. MORTELL	Art Unit 4154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/6/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “stop marker 32,” as described in the specification in line 29 on page 11. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 46 in Fig. 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as

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either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

Lines 21-22 contain the phrase, "Conventionally, a travel path to be selected by the driver on a display using pilot lines." Though written in sentence form, this phrase is not a sentence.

Lines 23-26 include, "Instead of determining the vehicle's surroundings via the camera device, it also possible to arithmetically generate a surroundings map of vehicle 20 via the analysis of distance sensors 2," where the context implies the intended language is "... it is also"

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States

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and was published under Article 21(2) of such treaty in the English language.

5. Claims 10, 11, 12, 13, 14, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Huertgen et al. (US 6,564,122 B1).

Regarding claim 10, Huertgen teaches:

A device for driving assistance for parking a vehicle (col. 1, lines 6-8; col. 6, line 64 – col. 7, line 6), comprising:

an output unit for outputting driving instructions to a driver; (col. 4, lines 12-16; col. 6, lines 24-25; FIG. 1: 15; FIG. 8: 21)

wherein the driving instructions provide a driver with a driving zone situated between two trajectories which are calculated in such a way that the vehicle can be moved within the driving zone. (col. 4, lines 12-16; col. 5, lines 10-13, 21-25; FIG. 3: 7)

Regarding claim 11, Huertgen teaches:

The device for driving assistance as recited in claim 10, wherein the output unit includes a display configured to display surroundings of the vehicle and to display the driving zone with respect to the displayed surroundings of the vehicle. (col. 2, lines 13-24; col. 7, lines 3-15; FIG. 5: 02, 14)

Regarding claim 12, Huertgen teaches:

The device for driving assistance as recited in claim 11, further comprising:

a detection unit configured to detect a set steering angle and to determine an anticipated travel path at an unchanged steering angle, the anticipated travel path being displayed at least partially with respect to the surroundings of the vehicle. (col. 3, line 63 – col. 4, line 16; col. 5, lines 10-13)

Regarding claim 13, Huertgen teaches:

The device for driving assistance as recited in claim 10, wherein the trajectories delimiting the driving zone require at least one full angle of a steering wheel for following the appropriate trajectory. (col. 5, lines 52-53; FIG. 5: 7)

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Regarding claim 14, Huertgen teaches:

The device for driving assistance as recited in claim 10, further comprising:

a measuring device configured to measure a distance of the vehicle to obstacles in the surroundings of the vehicle. (col. 4, lines 4-11)

Regarding claim 15, Huertgen teaches:

The device for driving assistance as recited in claim 10, further comprising:

a computer unit configured to determine a parking space suitable for the vehicle. (col. 6, lines 29-31)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huertgen et al. (US 6,564,122 B1) in view of Asahi et al. (US 6,825,880 B2).

Regarding claim 16, Huertgen teaches the device for driving assistance as recited in claim 10, but Huertgen does not teach that an indication for changing a turning direction of a steering wheel is output.

Regarding claim 16, Asahi, in the same field of endeavor, teaches a steering assist device wherein an indication for changing a turning direction of a steering wheel

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is output for the benefit of providing a steering assist device at a parking time in which a driver can easily grasp steering timing and a steering amount at a backward parking time. (col. 3, lines 37-41; col. 4, lines 43-49; col. 6, lines 19-26; col. 7, lines 5-54; FIG. 4: 26, 40; FIG. 5)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the steering assist device wherein an indication for changing a turning direction of a steering wheel is output, as taught by Asahi, with the device for driving assistance taught by Huertgen because it would enable the device to provide a steering assist device at a parking time in which a driver can easily grasp steering timing and a steering amount at a backward parking time.

8. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huertgen et al. (US 6,564,122 B1), as applied to claim 10 above, in view of Luckscheiter et al. (US 6,226,592 B1).

Regarding claim 17, Huertgen teaches the device for driving assistance as recited in claim 10, but Huertgen does not teach a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone.

Regarding claim 17, Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated

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driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 38-45, 57-63)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a powered unit configured to impact a steering wheel of the vehicle for outputting a haptic effect via the steering wheel when leaving the driving zone, as taught by Luckscheiter, with the device for driving assistance taught by Huertgen because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

Regarding claim 18, Huertgen teaches the device for driving assistance as recited in claim 10, but Huertgen does not teach a speaker to output an acoustic alert signal when leaving the driving zone.

Regarding claim 18, Luckscheiter, in the same field of endeavor, teaches a system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a speaker to output an acoustic alert signal when leaving the driving zone for the benefit of assisting a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior. (col. 1, lines 37-40; col. 2, lines 45-47, 57-63; FIG. 2: 210)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system for providing the operator of a motor vehicle with feedback regarding lane boundaries comprising a speaker to output an acoustic alert signal when leaving the driving zone, as taught by Luckscheiter, with the device for

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driving assistance taught by Huertgen because it would enable the device to assist a driver of a motor vehicle to travel within a designated driving lane, thereby helping him curb otherwise risky behavior.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Bender et al. (US 5,835,028) teaches a lane marker position sensor and alarm.

Okamoto (US 6,587,760 B2) teaches a motor vehicle parking support unit and method thereof.

Kada (US 6,871,717 B2) teaches a vehicle steering system.

Tanaka et al. (US 6,919,822 B2) teaches a parking assist device and method for assisting parking.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN F. MORTELL whose telephone number is (571)270-1873. The examiner can normally be reached on M-F: 7:30 a.m.-5:00 p.m. Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on 571-272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JM/

/Angela Ortiz/
Supervisory Patent Examiner, Art Unit 4154